

**WHAT IS CLAIMED IS:**

1           1.    A method comprising:  
2                    storing membership data at a client having a  
3   client identification, said membership data including a  
4   first group identifier corresponding to a first group and a  
5   first expiration indicator;  
6                    transmitting a group membership file at a host,  
7   said group membership file including a second group  
8   identifier associated with a member identifier and a second  
9   expiration indicator; and  
10                  updating the membership data at the client.

1           2.    The method of claim 1, wherein updating the  
2   membership data comprises:  
3                    examining the first expiration indicator to  
4   determine if membership in the first group has expired; and  
5                    deleting the first expiration indicator and the  
6   first group identifier in response to a determination that  
7   membership in the first group has expired.

1           3.    The method of claim 1, wherein updating the  
2   membership data comprises:  
3                    receiving the group membership file at the  
4   client;

5           comparing the member identifier to the client  
6      identification; and

7           storing the second group identifier and the  
8      second expiration indicator at the client in response to  
9      the member identifier matching the client identification.

1           4.    The method of claim 1, wherein the group  
2      membership file includes the first group identifier and two  
3      or more member identifiers associated with the first group  
4      identifier, and wherein updating the membership data  
5      comprises:

6           comparing each of said member identifiers to the  
7      client identification; and

8           deleting the first group identifier and the first  
9      expiration indicator in response to the client  
10     identification matching one of said member identifiers.

1           5.    The method of claim 1, wherein the expiration  
2      indicator comprises a date.

1           6.    The method of claim 1, wherein the expiration  
2      indicator comprises a time.

1           7.    The method of claim 1, further comprising:

2           transmitting a message including a payload and a  
3   transmitted group identifier;  
4           receiving the message at the client; and  
5           extracting the payload from the message in  
6   response to the first group identifier matching the  
7   transmitted group identifier.

1           8.   An article comprising:

2           a machine-readable medium which stores machine-  
3   executable instructions, the instructions causing a machine  
4   having a client identification to:

5           store membership data, said membership data  
6   including a first group identifier corresponding to a first  
7   group and a first expiration indicator;

8           receive a group membership file from a host, said  
9   group membership file including a second group identifier  
10   associated with a member identifier and a second expiration  
11   indicator; and

12          update the membership data.

1           9.   The article of claim 8, wherein the instructions  
2   causing the machine to update the membership data include  
3   instructions causing the machine to:

4           examine the first expiration indicator to  
5   determine if membership in the first group has expired; and

6 delete the first expiration indicator and the  
7 first group identifier in response to a determination that  
8 membership in the first group has expired.

1 10. The article of claim 8, wherein the instructions  
2 causing the machine to update the membership data include  
3 instructions causing the machine to:

4 compare the member identifier to the client  
5 identification; and

6 store the second group identifier and the second  
7 expiration indicator at the client in response to the  
8 member identifier matching the client identification.

1 11. The article of claim 8, wherein the group  
2 membership file includes the first group identifier and two  
3 or more member identifiers associated with the first group  
4 identifier,

5 and wherein the instructions causing the machine  
6 to update the membership data include instructions causing  
7 the machine to:

8 compare each of said member identifiers to the  
9 client identification; and

10 delete the first group identifier and the first  
11 expiration indicator in response to the client  
12 identification not matching one of said member identifiers.

1           12. The article of claim 8, wherein the expiration  
2 indicator comprises a date.

1           13. The article of claim 8, wherein the expiration  
2 indicator comprises a time.

1           14. The article of claim 8, further comprising  
2 instructions causing the machine to:

3                 receive a message including a payload and a  
4 transmitted group identifier; and

5                 extract the payload from the message in response  
6 to the first group identifier matching the transmitted  
7 group identifier.

1           15. An apparatus comprising:

2                 a receiver to receive messages and a group  
3 membership file including a plurality of membership  
4 records, a membership record including a member identifier  
5 associated with a first group identifier and a first  
6 expiration indicator;

7                 a memory to store an apparatus identification;

8                 a membership file to store a second group  
9 identifier and an associated second expiration indicator;

10                a clock to output a current time; and

11           a receiver controller coupled to the receiver,  
12   the memory, the membership file, and the clock, said  
13   receiver controller operative to update the membership file  
14   in response to one of the group membership file and the  
15   current time.

1           16. The apparatus of claim 15, wherein the receiver  
2   is operative to compare the client identification to the  
3   member identifier in the membership record and to store the  
4   first group identifier and the first expiration identifier  
5   in the membership file in response to the member identifier  
6   matching the apparatus identification.

1           17. The apparatus of claim 15, wherein the receiver  
2   controller is operative to compare the second expiration  
3   indicator to the current time and to delete the second  
4   group identifier and the second expiration indicator in  
5   response to the second expiration indicator exceeding or  
6   matching the current time.

1           18. The apparatus of claim 15, wherein a message  
2   includes a transmitted group identifier and a payload, and  
3   wherein the receiver controller is operative to extract the  
4   payload in response to the transmitted group identifier  
5   matching the second group identifier.

1        19. A system host comprising:  
2                a memory to store a group membership file  
3 including data indicative of group memberships;  
4                a group generator to generate membership records  
5 in a group membership file, a membership record including a  
6 group identifier, a member identifier, and an expiration  
7 indicator; and  
8                a group controller to update the group membership  
9 file.

1        20. The system host of claim 19, further comprising a  
2 clock to output a current time, and wherein the group  
3 controller is operative to compare the expiration indicator  
4 to the current time and to delete the membership record in  
5 response to the expiration indicator exceeding or matching  
6 the current time.

1        21. The system host of claim 19, wherein the  
2 expiration indicator comprises a date.

1        22. The system host of claim 19, wherein the  
2 expiration indicator comprises a time.

1        23. A system comprising:  
2                a system host comprising:

3           a group generator to generate membership records  
4   in a group membership file, a membership record including a  
5   first group identifier, a membership identifier, and a  
6   first expiration indicator; and

7           a transmitter to transmit the group membership  
8   file; and

9           a client comprising:

10          a receiver to receive messages and the group  
11   membership file;

12          a memory to store an apparatus identification;

13          a membership file to store a second group  
14   identifier and an associated second expiration indicator;

15          a clock to output a current time; and

16          a receiver controller coupled to the receiver,  
17   the memory, the membership file, and the clock, said  
18   receiver controller operative to update the membership file  
19   in response to one of the group membership file and the  
20   current time.

1           24. The system of claim 23, wherein the second  
2   expiration indicator comprises a time.

1           25. The system of claim 24, wherein the receiver  
2   controller is operative to compare the second expiration  
3   indicator to the current time and to delete the second



- 4 group identifier and the second expiration indicator in
- 5 response to the second expiration indicator exceeding or
- 6 matching the current time.